IN THE CLAIMS:

The status of each claim that has been introduced in the above-referenced application is identified in the ensuing listing of the claims. This listing of the claims replaces all previously submitted claims listings.

1. (Canceled)

2. (Canceled)

3. (Currently amended) ~~The~~ A method ~~of claim 2, further comprising~~ for preparing a digital object to be rendered, comprising:

sorting data representative of at least three vertices of at least one polygon of at least a portion of the digital object based on relative vertical positions of the at least three vertices;

generating an orientation decision variable based on relative positions of said at least three vertices;

calculating a cross product term of said at least one polygon following said sorting;

determining a sign of said a cross product term; and

evaluating said sign of said cross product term and said orientation decision variable to determine whether to cull said data prior to rendering an image of at least a portion of the digital object.

4. (Original) The method of claim 3, wherein said evaluating comprises comparing said sign of said cross product term, as modified with said orientation decision variable, and an actual orientation of said at least one polygon.

5. (Currently amended) The method of claim ~~1~~3, further comprising using at least one of said cross product term and a positional difference between two of said at least three vertices to determine an appearance characteristic of said at least one polygon.

6. (Currently amended) The method of claim ~~1~~3, wherein said sorting and said generating are effected substantially concurrently.

7. (Currently amended) The method of claim ~~1~~3, wherein said generating comprises generating said orientation decision variable based upon a sorted order of said data representative of said at least three vertices.

8. (Previously Presented) The method of claim 7, wherein said generating further comprises generating said orientation decision variable to indicate that an orientation of said at least one polygon is one of an orientation of said at least one polygon, as indicated by a sign of said cross product term, and opposite an orientation of said at least one polygon, as indicated by said sign of said cross product term.

9. (Canceled)

10. (Canceled)

11. (Currently amended) ~~The~~ A method ~~of claim 10, further comprising~~ for preparing a digital object to be rendered, comprising:

sorting data representative of at least three vertices of at least one polygon of the digital object based on relative vertical positions of the at least three vertices;

generating an orientation decision variable based on relative positions of said at least three vertices;

calculating a cross product term of said at least one polygon following said sorting;

determining a sign of said cross product term; and

evaluating said sign of said cross product term and said orientation decision variable to determine whether to cull said data prior to rendering an image of the digital object.

12. (Original) The method of claim 11, wherein said evaluating comprises comparing said sign of said cross product term, as modified with said orientation decision variable, and an actual orientation of said at least one polygon.

13. (Currently amended) The method of claim ~~9~~11, further comprising using at least one of said cross product term and a positional difference between two of said at least three vertices to determine an appearance characteristic of said at least one polygon.

14. (Currently amended) The method of claim ~~9~~11, wherein said sorting and said generating are effected substantially concurrently.

15. (Currently amended) The method of claim ~~9~~11, wherein said generating comprises generating said orientation decision variable based upon a sorted order of said data representative of said at least three vertices.

16. (Previously Presented) The method of claim 15, wherein said generating further comprises generating said orientation decision variable to indicate that an orientation of said at least one polygon is one of an orientation of said at least one polygon, as indicated by a sign of said cross product term, and opposite an orientation of said at least one polygon, as indicated by said sign of said cross product term.

17. (Canceled)

18. (Currently amended) The system of claim ~~17~~21, wherein said first, second, and third logic circuits are each under control of a back face culling application.

19. (Currently amended) The system of claim ~~17~~21, wherein said first, second, and third logic circuits are each part of a computer processor.

20. (Canceled)

21. (Currently amended) ~~The~~ A system ~~of claim 20, further comprising~~ for rendering an image of a digital object, comprising:

a first logic circuit that sorts data representative of at least three vertices of at least one polygon of at least a portion of the digital object based on relative vertical positions of the at least three vertices;

a second logic circuit that generates an orientation decision variable based on relative vertical positions of said at least three vertices;

a third logic circuit that calculates a cross product term of said at least three vertices following sorting thereof by said first logic circuit;

a fourth logic circuit that determines a sign of said cross product term; and

a fifth logic circuit that determines an orientation of said at least one polygon based on said sign of said cross product term and said orientation decision variable.

22. (Previously Presented) The system of claim 21, wherein said fifth logic circuit also decides whether to cull said data representative of said at least three vertices based on said orientation of said at least one polygon.

23. (Currently amended) The system of claim ~~17~~21, wherein at least one of said orientation decision variable and a positional difference between two of at least three sorted vertices is useful for imparting a characteristic to said at least one polygon.

24. (Currently amended) The system of claim ~~17~~21, wherein said first and second logic circuits operate substantially concurrently.

25. (Currently amended) The system of claim ~~17~~21, wherein said first and second logic circuits comprise the same logic circuit.

26. (Canceled)

27. (Currently amended) The system of claim ~~26~~30, wherein said first, second, and third logic circuits are each under control of a back face culling application.

28. (Currently amended) The system of claim ~~26~~30, wherein said first, second, and third logic circuits are each part of a computer processor.

29. (Canceled)

30. (Currently amended) ~~The~~ A system ~~of claim 29, further comprising~~ for rendering an image of a digital object, comprising:

a first logic circuit that sorts data representative of at least three vertices of at least one polygon of the digital object based on relative vertical positions of the at least three vertices;

a second logic circuit that generates an orientation decision variable based on relative vertical positions of said at least three vertices;

a third logic circuit that calculates a cross product term of said at least three vertices following sorting thereof by said first logic circuit;

a fourth logic circuit that determines a sign of said cross product term; and

a fifth logic circuit that determines an orientation of said at least one polygon based on said sign of said cross product term and said orientation decision variable.

31. (Previously Presented) The system of claim 30, wherein said fifth logic circuit also decides whether to cull said data representative of said at least three vertices based on said orientation of said at least one polygon.

32. (Currently amended) The system of claim ~~26~~30, wherein at least one of said orientation decision variable and a positional difference between two of at least three sorted vertices is useful for imparting a characteristic to said at least one polygon.

33. (Currently amended) The system of claim ~~26~~30, wherein said first and second logic circuits operate substantially concurrently.

34. (Currently amended) The system of claim ~~26~~30, wherein said first and second logic circuits comprise the same logic circuit.

35. (Previously presented) A method for processing a digital image including a plurality of polygons, each polygon of the plurality including at least three vertices, said method comprising:

sorting data representative of the at least three vertices for each polygon;

determining positional differences between adjacent vertices of each polygon following said sorting;

determining a cross product term for each polygon from said positional differences;

determining a sign of said cross product term;

evaluating said cross product term for each polygon and a sorted order of said data to determine an orientation of each polygon, including evaluating said sign of said cross product term and, if said sign does not correspond to an actual orientation of a corresponding polygon, changing said sign of said cross product term; and

culling data representative of polygons oriented in a back facing direction.

36. (Original) The method of claim 35, further comprising using at least one of said positional differences in another rendering operation.

37-40 (Canceled)

41. (Previously presented) The method of claim 35, wherein said culling is effected if said corresponding polygon was previously front facing and said sign of said cross product term has changed.

42. (Original) The method of claim 35, wherein said sorting comprises sorting said data based on relative positions of the at least three vertices of each polygon.

43. (Previously Presented) The method of claim 42, wherein said sorting comprises sorting said data based on relative vertical positions of the at least three vertices of each polygon.

44. (Previously Presented) The method of claim 43, further comprising sorting said data based on relative horizontal positions of at least two vertices of the at least three vertices of each polygon.

45. (Previously Presented) The method of claim 35, further comprising generating an orientation decision variable.

46. (Original) The method of claim 45, wherein said generating is effected substantially simultaneously with said sorting.

47. (Original) The method of claim 45, wherein said generating is effected following said sorting.

48. (Original) The method of claim 45, wherein said evaluating said sorted order of said data comprises evaluating said orientation decision variable.

49. (Previously presented) A method for rendering an image of a digital object, comprising:

sorting data representative of positions of at least three vertices of a polygon of the digital object;

determining a cross product term for said at least three vertices following said sorting;

determining an orientation decision variable based on a sorted order of said data

considering said orientation decision variable in determining whether said polygon is front facing or back facing based at least in part on an actual orientation of said at least three vertices, a sign of said cross product term, and a sorted order of said at least three vertices; and

culling data representative of positions of said at least three vertices if said polygon is back facing.

50. (Original) The method of claim 49, wherein said sorting is effected on a basis of relative positions of said at least three vertices.

51. (Original) The method of claim 50, wherein said sorting is based on relative vertical positions of said at least three vertices.

52. (Original) The method of claim 51, wherein said sorting is also based on relative horizontal positions of at least two vertices of said at least three vertices.

53. (Canceled)

54. (Previously presented) The method of claim 49, wherein said determining said orientation decision variable is effected substantially concurrently with said sorting.

55. (Previously presented) The method of claim 49, wherein said determining said orientation decision variable is effected following said sorting.

56. (Canceled)

57. (Previously Presented) The method of claim 49, wherein said determining whether said polygon is front facing or back facing comprises determining whether said at least three vertices are oriented in a clockwise direction or a counterclockwise direction.

58. (Previously presented) The method of claim 49, wherein said determining whether said polygon is front facing or back facing comprises comparing an orientation in which said at least three vertices are arranged to an actual orientation of said at least three vertices on a surface of said polygon.

59. (Canceled)

60. (Currently amended) The method of claim ~~5967~~, wherein said determining said orientation comprises determining whether said actual orientation of the at least three vertices of each polygon of the plurality of polygons is clockwise or counterclockwise.

61. (Previously Presented) The method of claim 60, wherein said determining whether said orientation of the at least three vertices of each polygon of the plurality of polygons has changed comprises determining whether said orientation is opposite said actual orientation.

62. (Previously Presented) The method of claim 61, wherein said sorting comprises arranging data representative of positions of the at least three vertices of each polygon of the plurality of polygons based on at least relative vertical positions of the at least three vertices of each polygon of the plurality of polygons.

63. (Original) The method of claim 62, wherein said sorting further comprises arranging said data based on horizontal positions of at least two vertices of the at least three vertices.

64-66 (Canceled)

67. (Currently amended) ~~The~~ A method ~~of claim 66,~~ for rendering an image of a digital object that includes a plurality of polygons, each of said polygons having at least three vertices, said method comprising:

sorting data representative of the at least three vertices of each polygon of the plurality of polygons of the image;

determining an orientation of the at least three vertices based on a sorted order of said data;

generating an orientation decision variable based on said orientation;

calculating a cross product term for each polygon based on the sorted data;

determining a sign of said cross product term; and

determining whether said orientation of the at least three vertices of each polygon of the plurality of polygons has changed from an actual orientation of the at least three vertices of each polygon of the plurality of polygons, ~~wherein said determining whether said orientation of the at least three vertices of each polygon of the plurality of polygons has changed comprises~~ including evaluating said sign of said cross product term and said orientation decision variable.;

culling data of the at least three vertices of each polygon of the plurality of polygons when said orientation has changed from said actual orientation.

68. (Currently amended) The method of claim ~~59~~67, further comprising providing each polygon with an appearance based at least in part on at least one of a cross product term of that polygon and a positional difference between at least two vertices of the at least three vertices of that polygon.

69. (Previously presented) A method for processing a digital image including a plurality of polygons, each polygon of the plurality including at least three vertices, said method comprising:

sorting data representative of the at least three vertices for each polygon;

determining positional differences between adjacent vertices of each polygon following said sorting;

determining a cross product term for each polygon from said positional differences;

generating an orientation decision variable;

evaluating said cross product term for each polygon and said orientation decision variable to determine an orientation of each polygon; and

culling data representative of polygons oriented in a back facing direction.

70. (Previously presented) The method of claim 69, further comprising using at least one of said positional differences in another rendering operation.

71. (Previously presented) The method of claim 69, further comprising determining a sign of said cross product term.

72. (Previously presented) The method of claim 71, further comprising evaluating said sign of said cross product term based on said sorted order of said data.

73. (Previously presented) The method of claim 72, wherein said evaluating said sign comprises comparing said sign to said orientation decision variable.

74. (Previously presented) The method of claim 72, further comprising changing said sign based on said evaluating said sign.

75. (Previously presented) The method of claim 72, further comprising leaving said sign unchanged based on said evaluating said sign.

76. (Previously presented) The method of claim 69, wherein said culling is effected if said corresponding polygon was previously front facing and said sign of said cross product term has changed.

77. (Previously presented) The method of claim 69, wherein said sorting comprises sorting said data based on relative positions of the at least three vertices of each polygon.

78. (Previously presented) The method of claim 77, wherein said sorting comprises sorting said data based on relative vertical positions of the at least three vertices of each polygon.

79. (Previously presented) The method of claim 77, further comprising sorting said data based on relative horizontal positions of at least two vertices of the at least three vertices of each polygon.

80. (Previously presented) The method of claim 79, wherein said generating is effected substantially simultaneously with said sorting.

81. (Previously presented) The method of claim 79, wherein said generating is effected following said sorting.